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DEPARTMENT OF STATE LANDS

MARC RACICOT, GOVERNOR
P.O. BOX 201601

STATE OF MONTANA

(406) 444-2074
1625 ELEVENTH AVENUE
HELENA, MONTANA 59620-1601

October 7, 1993

Dear Reader:

Enclosed for your review is an Environmental Assessment (EA) prepared by the Department of State Lands (DSL). The EA evaluates a proposal by Montana Tunnels Mining, Inc. for a redesign of a permitted waste rock dump and a buffer zone on the east side above the access road that increases the permit area by 205 acres.

Public comment on this EA will be received by the DSL until 5:00 p.m. October 29, 1993. Comments should be about the adequacy of the EA in assessing issues, new information not considered that may influence the analysis, and clarification. Comments should be specific. The DSL will use these comments and agency responses, the EA, and the application to make a final decision on the permit. The decision may be to approve the proposal, deny the proposal, or approve the proposal with modifications.

Comments will be accepted by calling Bob Winegar (444-2074) or written comments directed to:

Bob Winegar
Department of State Lands
PO Box 201601
Helena, MT 59601-1601

Thank you for your time and consideration. Please call Dept. of State Lands (444-2074) if you have any questions.

Sincerely,

Bob Winegar

Robert C. Winegar
Program Supervisor
Hard Rock Bureau
Reclamation Division

/etc

enclosure

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HELENA, MONTANA 59620

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CHECKLIST ENVIRONMENTAL ASSESSMENT

Applicant: Montana Tunnels Mining, Inc.

Project Name: Montana Tunnels

Operating Permit Number: 00113

Type and Purpose of Proposed Amendment: Waste rock dump redesign; updated disturbed acreage estimates; revised permit boundary; and updated bond calculations

SUMMARY OF THE PROPOSED ACTIONS:

1. Waste Rock Dump Redesign

Montana Tunnels Mining, Inc. (MTMI) has submitted an amendment application to modify the design of the waste rock dump. The purpose of the plan is to limit the potential for acid rock drainage from the waste rock dump. MTMI has committed to additional reclamation capping based on reclamation research data collected on the site for all mine waste dumps to minimize potential for acid rock drainage.

The permitted waste rock dump was analyzed in the 1986 Montana Tunnels EIS and totalled 421 acres. This 421 acre dump covered a portion of Pen Yan Creek and required a diversion of Pen Yan Creek. The proposed waste rock dump would cover 361 acres and not require the diversion fo Pen Yan Creek. MTMI would disturb an additional 42 acres and divert Pen Yan Creek as currently permitted if they locate more ore in the future. An updated reclamation plan would be required prior to implementation of this disturbance. As part of this amendment, MTMI needs to improve an access road and install a culvert in Pen Yan Creek to clear trees and salvage soil. MTMI has applied for a 310 permit from the Jefferson County Conservation District.

The proposed height of the waste rock dump is the same as originally permitted at 5900′. The waste rock dump would be built in 50-foot lifts and would have runoff control benches every 100 vertical feet. This redesign produces more benches than the original dump design approved in the 1986 EIS. Runoff would be routed toward a diversion in the native slope at the back of the waste rock dump rather than off the face of the waste rock dump surface as originally permitted. The benches and runoff control would minimize the potential for erosion of reclamation surfaces.

MTMI proposed to segregate acid generating from non-acid generating waste rock in the dump. All potential acid producing surfaces would be covered with at least 24-36 inches of non-acid producing caprock. This design change is based on results from

site specific operational reclamation research plots. The caprock would then be covered with 16 inches of soil, as currently permitted.

2. Updated Permit and Disturbed Acreages

The original permit authorized 965 disturbed acres. Operating Permit 00113 has been amended four times since 1986 and as a result, the disturbed acreages have increased to 1033. No increase in disturbed acreages result from this amendment.

Computer generated maps produced during the reclamation plan review have provided the opportunity to more accurately identify disturbed acreages as discussed above. All mine related disturbances and a buffer zone along the east side of the existing permit boundary are incorporated into the permit boundary. This increases the permitted acreage 205 acres, from 1606 acres to 1811 acres.

Bonding would be increased to account for the revised reclamation plan and update the total bond for actual reclamation costs. The current bond is based on a per acre basis.

Bureau of Land Management land totals 9 acres within the waste rock dump area. No additional disturbances on BLM result from this amendment.

In summary, DSL has reviewed the proposed waste rock dump redesign, revised operating permit boundary change, and disturbed acreage calculations. The agencies have concluded that the proposed changes would produce less environmental impacts than those discussed in the EIS produced in 1986. Specifically, less impacts would occur because the waste rock dump redesign would not require a diversion of Pen Yan Creek. Also, additional capping of the waste rock dump and tailing impoundment would minimize the potential for acid rock drainage.

Location: Sections 4, 5, 8, 9, 16, 17, and 20, T7N, R4W, Approximately 4 miles west of Jefferson City, Montana.

County: Jefferson

Reference of Existing Environmental Documents: This project was originally permitted following publication of a draft Environmental Impact Statement in November, 1985. The draft was adopted as final in January 1986. Four environmental analysis evaluated subsequent operating permit amendment applications; Amend. 001 undated, Amend. 002 May 1986, Amend. 003 April 1990, and Amend. 004 April 1993. This environmental assessment tiers to the original EIS and subsequent environmental assessments. All impacts discussed in the original EIS remain the same except

those noted below. All impacts are less than those discussed in the EIS.

N = Not present or No Impact will occur over that analyzed in the original environmental document

Y = Impacts may occur (explain under Potential Impacts).

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Is there any unsuitable soil or mine waste products that may not be geochemically stable? Are there special reclamation considerations? Have any design changes affected overall stability of the pit or reclaimed slopes?	[N] As part of a reclamation plan review initiated by DSL in 1988, MTMI has been testing mine waste products and developing a characterization plan that segregates acid generating waste rock from non-acid generating waste rock. The revised waste rock dump design segregates potential acid producing mine wastes from non-acid generating mine waste. This increases the reclamation success potential over what was analyzed in the original EIS. In addition, the reclamation plan has been revised for all mine waste products. The revised reclamation plan includes capping wastes with 24-36 inches of non acid generating material. Additional acreage would be disturbed to account for caprock stockpile locations. Bonds have been revised to include this additional reclamation costs of applying a caprock layer. There has been no change in pit stability since the EIS was completed. The reclaimed slopes will be as stable as analyzed in the EIS.
2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	[N] The mining company has redesigned and improved the drainage systems analyzed in the original EIS. No changes in water monitoring are proposed in the plan. The redesign of the waste rock dump does not require the diversion of Pen Yan Creek as originally permitted in the EIS. However, MTMI would disturb the additional 42 acres for waste rock disposal if additional ore is found. A future diversion of Pen Yan Creek would require an updated reclamation plan and environmental analysis. The additional capping proposed for all mine waste facilities limits the potential for acid rock drainage.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[N]
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?	[N]

5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[N]
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?	[N]
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N]
8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	[N]
9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?	[N]
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other studies, plans or projects on this tract?	[N]

IMPACTS ON THE HUMAN POPULATION

RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N]
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N]
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N]

14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N]
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc) be needed?	[N]
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N]
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N]
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N]
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N]
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N]
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N]

22. Alternatives Considered: No Action: The mine would continue to operate as permitted. The waste rock would not be segregated. Potential acidification of the waste rock dump and low grade ore stockpile reclamation plant communities could occur. The one foot of caprock presently permitted on the tailings impoundment may not be adequate to prevent acidification of the caprock and soil from the acidic tailings under the reclamation cap layers.

23. Public Involvement, Agencies, Groups or Individuals Contacted: The BLM, the Montana Dept. of Fish, Wildlife, and Parks, and the State Historic Preservation Office have been

contacted. Public notice was published in the Montana Standard and Independent Record on June 6, 13, and 20, 1993. This EA will be distributed to the mailing list compiled for this MTMI proposal.

24. Other Governmental Agencies with Jurisdiction, List of Permits Needed: The Bureau of Land Management, The Montana Department of Health and Environmental Science (MPDES jurisdiction including storm water discharge), Air Quality Bureau (Air Quality Permit) and the Jefferson County Conservation District (310 stream crossing permit) also have jurisdiction.

25. Magnitude and Significance of Potential Impacts: Potential impacts have been reduced from levels discussed in the original EIS both for the waste rock dump and tailing. No significant impacts would occur as a result of this revision.

26. Cumulative Impacts: MTMI is currently evaluating the ore reserves and is preparing a life-of-mine tailing impoundment expansion or the need for an additional tailings impoundment site. If MTMI submits a plan to amend their operating permit to include additional tailings storage areas, additional environmental review would be necessary. No other proposed mining activities or other activities are under concurrent consideration in this area which would have a cumulative effect.

Recommendation for Further Environmental Analysis:

[ ] EIS [ ] More Detailed EA [x] No Further Analysis

Checklist EA Prepared By: Pat Plantenberg and Bob Winegar
Name

Reclam. Specialist and Program Manager
Title

Reviewed and Approved By: Sandi Olsen by Bureau Chief
Name Title

Robert C. Winegar 10/7/93
Signature Date